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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/591,607

07/17/2007

Sergej Lopatin

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3404

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BACON & THOMAS, PLLC

625 SLATERS LANE

FOURTH FLOOR

ALEXANDRIA, VA 22314-1176

EXAMINER

GORDON, BRYAN P

ART UNIT

PAPER NUMBER

2834

MAIL DATE

DELIVERY MODE

03/24/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/591,607	Applicant(s) LOPATIN, SERGEJ	
	Examiner BRYAN P. GORDON	Art Unit 2834	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 February 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 8 and 10-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 8 and 10-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

In view of the appeal brief filed on 2/27/2009, PROSECUTION IS
HEREBY REOPENED. A new ground of rejection is set forth below.

To avoid abandonment of the application, appellant must exercise one of
the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a
reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31
followed by an appeal brief under 37 CFR 41.37. The previously paid notice of
appeal fee and appeal brief fee can be applied to the new appeal. If, however,
the appeal fees set forth in 37 CFR 41.20 have been increased since they were
previously paid, then appellant must pay the difference between the increased
fees and the amount previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening
prosecution by signing below:

/Quyen Leung/
SPE, Art Unit 2834.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for
all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described
as set forth in section 102 of this title, if the differences between the subject matter sought to
be patented and the prior art are such that the subject matter as a whole would have been
obvious at the time the invention was made to a person having ordinary skill in the art to which
said subject matter pertains. Patentability shall not be negated by the manner in which the
invention was made.

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2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. Claims 8, 10-11 and 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brutschin (PG Pub 20030159506) in view of Kanayama (US PN 5,929,554).

4. Considering claim 8, Brutschin (Figure 1 + 2a) teaches a an apparatus for determining and/or monitoring a process variable of a medium, comprising: a membrane (5) an oscillatable unit (2) secured to said membrane; a sending/receiving unit (6), which excites said oscillatable unit to oscillate and which receives oscillations of said oscillatable unit; a control/evaluation unit (10), which, on the basis of the oscillations of said oscillatable unit, monitors and/or determines the process variable, wherein; said sending/receiving unit comprises a disk-shaped, piezoelectric element (15).

However, Brutschin does not teach the piezoelectric element has two segments which are essentially polarized oppositely to one another and exactly two electrodes of opposite polarity are applied to the side of the piezoelectric element facing away from said membrane.

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In the same field of endeavor, Kanayama (Figure 13) teaches the piezoelectric element (16) has two segments which are essentially polarized oppositely to one another (See arrows on Figure 13) and exactly two electrodes (521, 523) of opposite polarity (col. 38 lines 58-67) are applied to the side of the piezoelectric element facing away from said membrane for the benefit of vibrating and oscillating the device.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include the piezoelectric element has two segments which are essentially polarized oppositely to one another and exactly two electrodes of opposite polarity are applied to the side of the piezoelectric element facing away from said membrane with Brutschin's device for the benefit described above.

5. Considering claim 10, Brutschin (5a) teaches wherein the electrodes (18-21) have essentially the same shape.
6. Considering claim 11, Brutschin (5a) teaches wherein the electrodes (18 and 21 make up one semicircle and 19 and 20 make up the other) have the shape of semicircular segments.
7. Considering claim 13, Brutschin teaches said piezoelectric element is provided on the side facing said membrane at least partially with a conductive coating (paragraph 0018).
8. Considering claim 14, Brutschin teaches wherein the side facing said membrane is connected electrically conductively with ground (paragraph 0006).

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9. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Brutschin (PG Pub 20030159506), in view of Kanayama (US PN 5,929,554) and in view of Lewiner (US PN 4,553,089).

10. Considering claim 12, Brutschin in view of Kanayama does not teach the said electrodes are so structured and arranged that they annularly surround themselves.

In the same field of endeavor, Lewiner teaches the electrodes are so structured and arranged that they annularly surround themselves (col. 2 lines 63-66) for the benefit of measuring the values of the electrical charges.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include the electrodes are so structured and arranged that they annularly surround themselves with the combination above for the benefit described above.

Response to Arguments

11. Applicant's arguments, see pages 10-14, filed 27 February 2009, with respect to the rejection(s) of claim(s) 8 under Brutschin have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Brutschin and Kanayama.

Conclusion

12. The examiner is withdrawing the final office action that was mailed out on 24 October 2008 and replacing it with this action.

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13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**.

See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

14. A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to BRYAN P. GORDON whose telephone number is (571)272-5394. The examiner can normally be reached on Monday-Thursday 8:00-5:30, Friday 7:30-4:00.

16. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Quyen Leung can be reached on 571-272-8188. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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17. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Quyen Leung/
Supervisory Patent Examiner, Art Unit 2834

/Bryan P Gordon/
Examiner, Art Unit 2834